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## (54) TUNGSTEN ELECTRODE MATERIAL

## (57)Abstract:

PROBLEM TO BE SOLVED: To make the arc ignitibility and resistance to consumption of a material excellent even under a high output and to make it the safe one free from radioactive contamination by incorporating a scandium compd. as an assistant component into tungsten as a main component.

SOLUTION: This electrode material contains a scandium compd. as an assistant component and the balance substantially consists of tungsten as a main component. The scandium compd. is composed of  $\text{Sc}_2\text{O}_3$ ,  $\text{ScF}_3$  or the like and its content is preferably made to 0.02 to 5 wt.%. As the tungsten powder and scandium compd. powder as the raw material powder, the ones having 0.5 to 20  $\mu\text{m}$  average particle size are preferably used. This tungsten electrode material is obtd. by adding scandium fluoride powder or scandium oxide powder having 1  $\mu\text{m}$  average particle size to the tungsten powder having about 1 to 5  $\mu\text{m}$  average particle size, stirring and mixing them in a dry process till they are uniformly dispersed, subjecting the obtd. powdery mixture to cold press molding and successively executing sintering or the like.

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